FEMA Best practices
Disaster Mitigation Working in Alaska

Power line protection brings hope to Hope

The 18 mile long Hope Feeder Power Line provides primary power to the communities of Sunrise and Hope.

There will still be storm related outages on this section of the line but the actions made possible by using the Hazard Mitigation Grant Program should decrease the frequency and cost of repairs.

Spruce bark beetles kill trees and disrupt power

Hope, Alaska —Electrical power outages are a fairly frequent occurrence in parts of the Kenai Peninsula, along with many other parts of Alaska. High winds, falling trees, heavy snow, ice and avalanches all contribute to causing power system damage. Winter storms and loss of electrical power in some remote communities can also bring loss of water, sewer, local telephone, cell-sites, emergency services systems and even access to groceries and fuel. Blizzards, extreme low temperatures, steep terrain, avalanches and other dangers conspire to delay the necessary repair work.

The small communities of Hope and Sunrise have experienced more than their fair share of such problems. According to a five year study completed by Chugach Electric Association (CEA), the non-profit association that owns and operates the electrical system, Hope residents and

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Right of way improvements

businesses have been affected by an average of 81 powerless hours per year, compared to 2.3 hours per year for the remainder of customers served by CEA.

In January, 2000, the Hope Feeder Line, running through the Chugach National Forest and across Department of Natural Resource (DNR) Land, was down in several places, with access blocked by avalanches. An emergency generator was brought in by helicopter to Hope. Again, in December, 2006, the same 18 mile line was so severely damaged that Hope and Sunrise needed large generators to be installed and maintained for some 7 weeks, as snow accumulated to depths of 8 to 12 feet.

The problem has been growing in recent years, largely due to that scourge of the northern forests, the Spruce Bark Beetle (*Dendroctonus rufipennis*). An enormous infestation of the beetles has killed most of the large spruce trees in the Kenai Peninsula. Much less wind force is needed to topple a dead tree, and remaining healthy trees are left more exposed to the wind. They've been falling across power lines with alarming frequency.

A partial solution has been found through Federal, State and Local government partnerships utilizing Local Hazard Mitigation Plans to identify the hazard, risks and vulnerabilities. Support for the first stages of work was approved by the Alaska Division of Homeland Security and Emergency Management's (DHS&EM) Hazard Mitigation Grant Program, with funds provided by the Federal Emergency Management Agency (FEMA) and the State of Alaska. Money for additional stages of the plan is well along in the approval process. The eventual savings are calculated to be more than four times the amount of the improvement investments.

The work, designed to be done in stages and already well underway, involves clearing the right of way and removing "hazard trees" that tower nearby. Relocating or undergrounding sections of the line to avoid avalanche chutes and steep gorges will also make a big difference to the reliability of the system. These projects will reduce the danger to repair crews and drastically reduce emergency response costs to homeowners, CEA, the State of Alaska and FEMA.

Another benefit of this effort is enhanced wildfire mitigation in conjunction with Forest Service work in the area. Clearing excess fire fuel and in some sections widening the right of way, will provide a more effective wildfire break. If the improvements work as expected they will bring a new day for Sunrise and less despair in Hope.

For more project information contact:

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What can be done about Spruce Bark Beetles? The Kenai Peninsula Borough Spruce Bark Beetle Mitigation Program includes comprehensive programs designed to enhance:

- **Fire prevention and public safety;**
- **Timber management and reforestation;**
- **Fuel modeling and risk/ hazard/fire assessment;**
- **Public education and communications;**
- **Public assistance;**
- **Science and research;**
- **Long term planning;**
- **Continuity of efforts through All Lands/All Hands Action.**

For more information: www2.borough.kenai.ak.us/SBB/default.htm